JVC

VIDEO CASSETTE RECORDER
HR-V610E
HR-V611E
HR-V612E

SHOWVIEW™ DELUXE
VHS PAL SQPB
Hi-Fi

INSTRUCTIONS

LPT0915-001A
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SAFETY FIRST

Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION
- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the mains outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the mains outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING
There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).
1. This recorder can also receive SECAM-B colour television signals for recording and playback.
2. Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
3. SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT
- Please read the various precautions on pages 1 and 2 before installing or operating the recorder.
- It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

For Italy:
"It is declared that this product, brand JVC, conforms to the Ministry Decree n. 548 of 28 Aug.'95 published in the Official Gazette of the Italian Republic n. 301 of 28 Dec.'95"

The ⏻/I button does not completely shut off mains power from the unit, but switches operating current on and off. "⏻" shows electrical power standby and " I " shows ON.

Video tapes recorded with this video recorder in the LP (Long Play) mode cannot be played back on a single-speed video recorder.

VHS PAL SQPB HQ SHOWVIEW™ DELUXE

- Cassettes marked "VHS" (or "S-VHS") can be used with this video cassette recorder. However, S-VHS recording is not possible with this model.
- This model is equipped with SQPB (S-VHS QUASI PLAYBACK) that makes it possible to play back S-VHS recordings in the SP mode with regular VHS resolution.
- HQ VHS is compatible with existing VHS equipment.
- SHOWVIEW is a trademark of Gemstar Development Corporation. The SHOWVIEW system is manufactured under licence from Gemstar Development Corporation.

When the equipment is installed in a cabinet or a shelf, make sure that it has sufficient space on all sides to allow for ventilation (10 cm or more on both sides, on top and at the rear).

When discarding batteries, environmental problems must be considered and the local rules or laws governing the disposal of these batteries must be followed strictly.

Failure to heed the following precautions may result in damage to the recorder, remote control or video cassette.

1. DO NOT place the recorder …
   … in an environment prone to extreme temperatures or humidity.
   … in direct sunlight.
   … in a dusty environment.
   … in an environment where strong magnetic fields are generated.
   … on a surface that is unstable or subject to vibration.
2. DO NOT block the recorder's ventilation openings or holes. (If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
3. DO NOT place heavy objects on the recorder or remote control.
4. DO NOT place anything which might spill on top of the recorder or remote control. (If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)
5. DO NOT expose the apparatus to dripping or splashing.
6. DO NOT use this equipment in a bathroom or places with water. Also DO NOT place any containers filled with water or liquids (such as cosmetics or medicines, flower vases, potted plants, cups, etc.) on top of this unit.
7. DO NOT place any naked flame sources, such as lighted candles, on the apparatus.
8. AVOID violent shocks to the recorder during transport.

MOISTURE CONDENSATION

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions—just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.

How to use the remote control

Before use, insert the batteries in the correct directions as indicated under the battery cover. The remote control can operate most of your recorder's functions, as well as basic functions of JVC TVs.

- Point the remote control towards the remote sensor on the target component. The maximum operating distance is about 8 m.
- To operate a JVC TV, use any of the following buttons: **TV** ⏻/I, **TV** ⏀, **TV PR +/–** or **TV** ◿**+/–**.

NOTE:

If the remote control does not work properly, remove its batteries, wait for a few seconds, replace the batteries and then try again.

Video heads cleaning

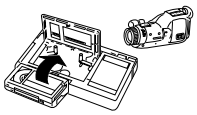
The heads get dirty in the following cases:

- in an environment prone to extreme temperature or humidity
- in a dusty environment
- flaw, dirt or mold on video tapes
- continuous usage for a long time

Use a dry cleaning cassette — TCL-2 — when:

- Rough, poor picture appears while a tape is played back.
- The picture is unclear or no picture appears.
- "USE CLEANING CASSETTE" appears on the screen (only with "O.S.D." set to "ON" (☞ 12)).

Usable cassettes



- Compact VHS camcorder recordings can be played on this recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- This recorder is equipped with SQPB (S-VHS QUASI PLAYBACK) that lets you watch tapes recorded in the S-VHS format and the SP mode with regular VHS resolution.
  ** SQPB does not deliver Super VHS resolution.*
- This recorder can record on regular VHS and Super VHS cassettes. However, it will record regular VHS signals only.
  ** S-VHS recording is not possible with this recorder.*

ATTENTION:

TO MOBILE PHONE USER:

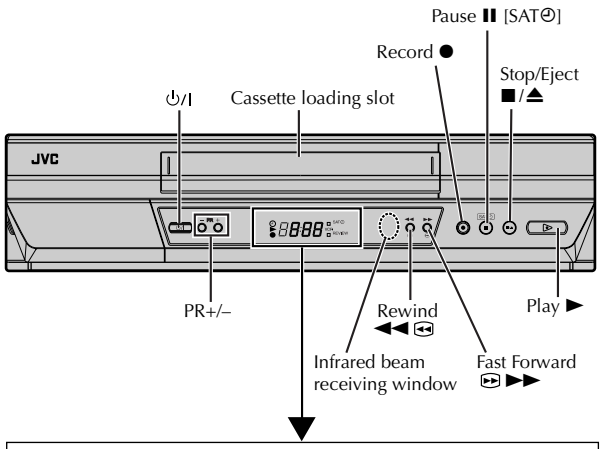
Using a mobile phone in the vicinity of the recorder may cause picture vibration on the TV screen or change the screen to a blue back display.

ON PLACING THE RECORDER:

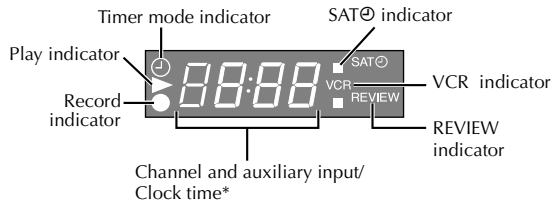
Some TVs or other appliances generate strong magnetic fields. DO NOT place such appliance on top of the recorder as it may cause picture disturbance.

Buttons, Connectors and Indicators

Front Panel

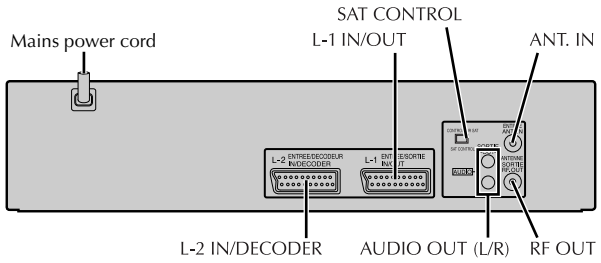


Display panel

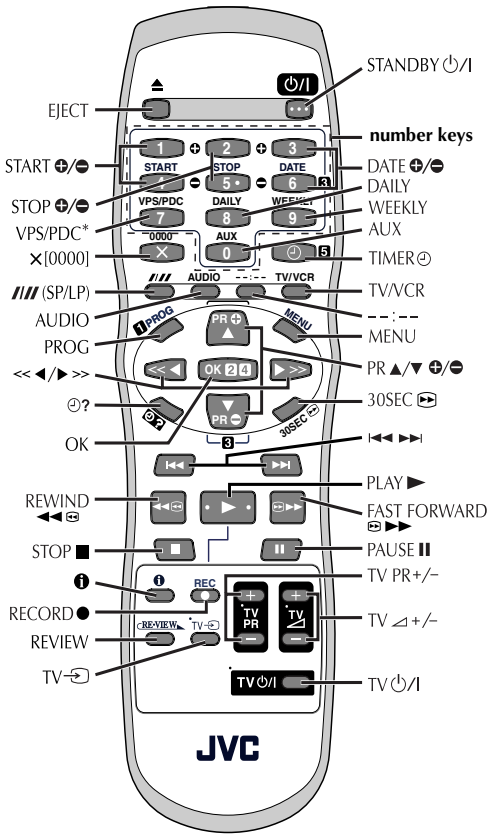


** Each time you press – –:– –, the display panel shows the channel number and the clock time alternatively.*

Rear Panel



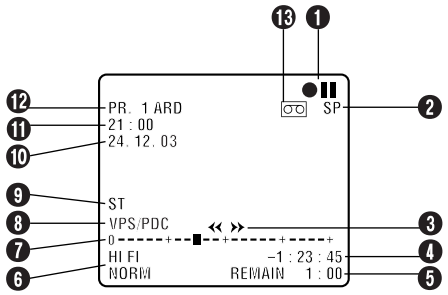
Remote control



** PDC recording is not possible in Central and Eastern Europe.*

On-screen display

If you press ❶ on the remote control when "O.S.D." is set to "ON" (☞ 12), you can see the current recorder status on the screen. To clear the on-screen display, press ❶ again.
The indications are not recorded even if the recorder is in the recording mode.



❶ Recorder operation mode
❷ Tape speed
❸ Tape direction
❹ Time counter
❺ Tape remaining time
❻ Audio mode
❼ Tape position*
** The position of "▮" in relation to "0" (Beginning) or "+" (End) shows the current position on the tape.*
❽ VPS/PDC* indicator
** PDC recording is not possible in Central and Eastern Europe.*
❾ Type of broadcast
❿ Current day/month/year
⓫ Clock
⓬ Channel and auxiliary input
⓭ Cassette loaded mark

Basic Connections

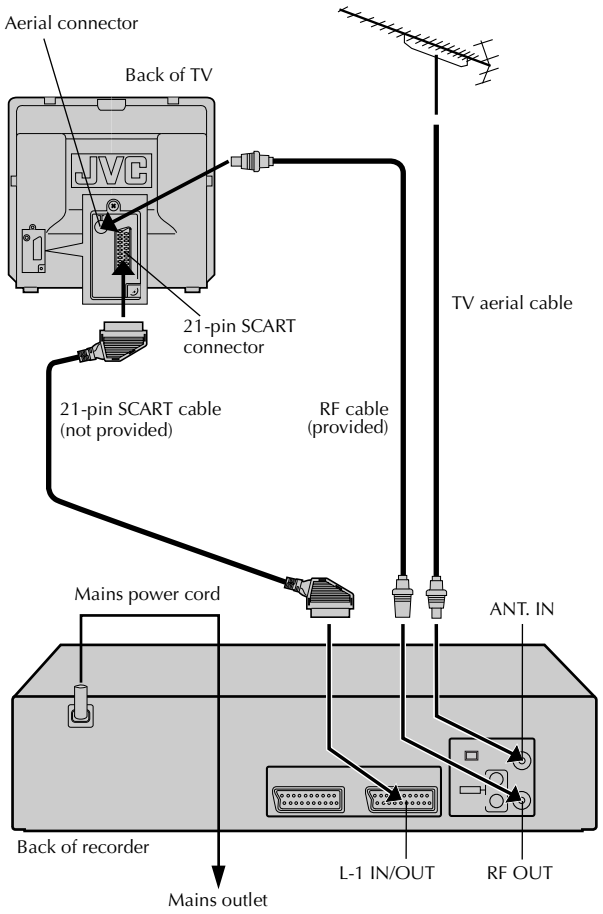
1 Check contents

Make sure the package contains all of the accessories listed in "Specifications" (☞ 16).

2 Situate recorder

Place the recorder on a stable, horizontal surface.

3 Connect recorder to TV



RF Connection

1 Disconnect the TV aerial cable from the TV.
2 Connect the TV aerial cable to the ANT. IN connector on the rear of the recorder.
3 Connect the provided RF cable between the RF OUT connector on the rear of the recorder and the TV's aerial connector.

AV Connection

If your TV is equipped with a 21-pin SCART connector, perform AV connection to improve picture quality during tape playback.
1 Connect the aerial, recorder and TV as shown in the illustration.
2 Connect an optional 21-pin SCART cable between the L-1 IN/OUT connector on the rear of the recorder and the TV's 21-pin SCART connector.

4 Connect recorder to mains

Plug the mains power cord into a mains outlet.

Initial Settings

After the ⏻/I is pressed for the first time to power on the recorder, the recorder starts Auto Set Up or Preset Download.

ATTENTION:
If you have connected the recorder to a TV offering T-V Link via a fully-wired 21-pin SCART cable and if the TV is turned on, the recorder automatically performs the Preset Download (☞ 5) even if you perform Auto Set Up.

Before starting:
- Perform "Basic Connections".
- Set the TV to its AV mode (with AV connection) or UHF channel 36 (with RF connection).

Auto Set Up

— Auto Channel Set/Auto Clock Set*/Auto Guide Program Number Set

** If you select a country in Central or Eastern Europe, set the clock manually (☞ 13).*

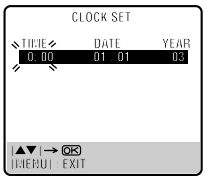
ATTENTION:
While performing Auto Set Up for the first time,
- **do NOT** disconnect the recorder from the power supply (AC)
- **do NOT** press any button unless instructed
- ensure that Auto Set Up is not interrupted while the operation is still in progress

1 Turn on recorder

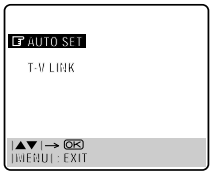
Press ⏻/I. The Country Set screen appears on the screen.
- If you have connected your TV to the recorder with RF connection and the on-screen display appearing on UHF channel 36 looks distorted, perform "Video Channel Set" (☞ 15).

2 Select your country

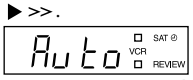
Press ▲▼ to place the pointer next to your country, then press **OK**. The language is automatically selected for the on-screen display depending on the country you have selected. The AUTO SET/T-V LINK screen appears.
- If you have selected BELGIUM or SUISSE, the Language Set screen appears. Press ▲▼ to place the pointer next to the desired language, then press **OK**.
- If you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE, the Clock Set screen appears. Press ▲▼ until the desired time appears, then press **OK** or ▶ >>. Set the date and year in the same way. (Holding ▲▼ changes the time in 30-minute intervals, or changes the date in 15-day intervals.) Then press **MENU**.



3 Perform Auto Set Up



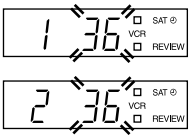
Press ▲▼ to place the pointer next to "AUTO SET" and press **OK** or ▶ >>.
- If you are using the display panel, press ▲▼ to select "Auto" and press **OK** or ▶ >>.



- **Do NOT** press any button during Auto Set Up.

4 Confirm/Set video channel

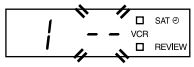
With RF connection
The video channel that is shown on the display panel is your video channel. Press **OK**.



- If you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE in step 2, "2" appears instead of "1".

● To view picture signals from the recorder, set your TV to the video channel.

With AV connection



Press **PR –** until the display panel shows "1 – –" (or "2 – –"). Now the video channel is set to off. Then press **OK**.

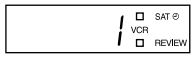
● To view picture signals from the recorder, set your TV to its AV mode.

5 Check results

If both Auto Channel Set and Clock Set have been performed successfully, the correct current time is displayed.

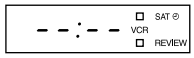
Turn on the TV and select its video channel or AV mode. Then make sure that all necessary stations have been stored in the recorder's memory by using the **PR** button(s).

If Auto Channel Set has succeeded but Clock Set has not, "1" is displayed.



1 Turn on the TV and select its video channel or AV mode. Then make sure that all necessary stations have been stored in the recorder's memory by using the **PR** button(s).
2 Perform "Clock Set" (☞ 13).

If both Auto Channel Set and Clock Set have failed, "– –:– –" is displayed.



Make sure the cables are connected properly. Turn off the recorder once, then turn the recorder back on again. The Country Set screen appears on the screen. Perform "Auto Set Up" (☞ 4) or "Preset Download" again.

Preset Download

— Auto Channel Set by downloading preset data from TV/ Auto Clock Set*/Auto Guide Program Number Set

** If you select a country in Central or Eastern Europe, set the clock manually (☞ 13).*

ATTENTION:

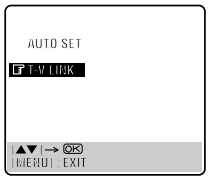
You can use this function only with a TV offering T-V Link, etc.* Be sure to use a fully-wired 21-pin SCART cable.

** Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NexTView Link via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.*

Before starting:

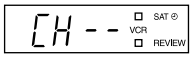
Perform steps 1 – 2 of "Auto Set Up" (☞ 4).

1 Perform Preset Download



Press ▲▼ to place the pointer next to "T-V LINK" and press **OK** or ▶ >>.

● If you are using the display panel, press ▲▼ to select "CH – –" and press **OK** or ▶ >>.



● **Do NOT** press any button during Preset Download. When Preset Download is completed, "COMPLETED" appears for about 5 seconds, then the normal screen appears.

2 Check results

Perform step 5 of "Auto Set Up" (☞ 4).

3 Set video channel to off

Perform "Video Channel Set" (☞ 15).

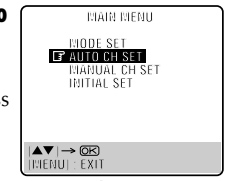
NOTES:

- *Depending on the area, the recorder cannot perform Auto Set Up or Preset Download properly.*
- *In the area where no TV station transmits a PDC (Programme Delivery Control) signal, the recorder can perform neither Auto Clock Set nor Auto Guide Program Number Set.*
- *If you have moved to a different area, perform "Video Channel Set" (☞ 15) (with RF connection), "Tuner Set" (☞ 13) and "Clock Set" (☞ 13) as required.*
- *If a new station starts broadcasting in your area, perform "Tuner Set" (☞ 13) and, if necessary, "Video Channel Set" (☞ 15).*

Language Set

You can change the language setting manually as required.

1 Access Main Menu screen, then Auto Channel Set screen



Press **MENU**. Press ▲▼ to place the pointer next to "AUTO CH SET", then press **OK** or ▶ >>.

2 Select your country

Press ▲▼ to place the pointer next to your country, then press **OK** or ▶ >>.

3 Select language

Press ▲▼ to place the pointer next to the desired language.

● You do not have to press **OK**; pressing **OK** enters AUTO SET/T-V LINK screen.

4 Return to normal screen

Press **MENU**.

T-V Link Functions

When you connect the recorder to your TV via a fully-wired 21-pin SCART cable, the following functions are available. You can use these functions only with a TV offering T-V Link, etc.* For details, refer to the instruction manual of your TV.

** Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NexTView Link via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.*

NextView Link

You can download the EPG (Electronic Programme Guide) information from your TV for timer-programming on the recorder.

TV Auto Power On

The TV will turn on and be set to its AV mode automatically whenever you play a tape.

VCR Auto Standby

You can use your TV's remote control to turn off the recorder.

Direct Rec

You can easily start recording the programme that you are watching on your TV. When you use this function, set "DIRECT REC" to "ON". (☞ 12)

Satellite Receiver Control Set

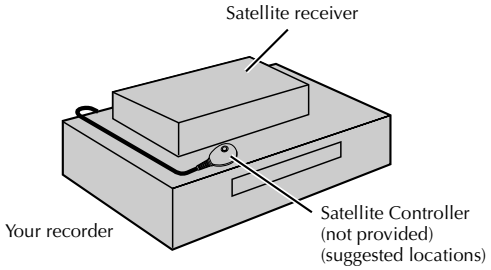
When you use an optional Satellite Controller and perform the following settings, you can control your satellite receiver's channel for timer recording. Approximately 20 seconds before the timer recording starts, the recorder sets its input mode to "L-2" and the Satellite Controller switches the satellite receiver's channels.

1 Situate Satellite Controller

Place the Satellite Controller so that the path between its transmitter and the satellite receiver's remote sensor is unobstructed.

2 Attach Satellite Controller

Fix securely using the adhesive strip attached on the back of the Satellite Controller.

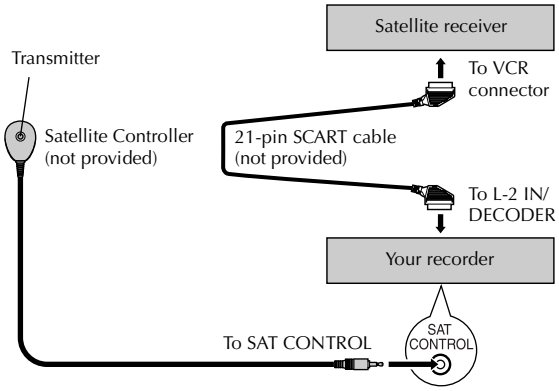


3 Make connections

Connect the recorder's L-2 IN/DECODER connector to the satellite receiver's 21-pin SCART connector.

4 Connect Satellite Controller to recorder

Connect the Satellite Controller to the SAT CONTROL connector on the rear panel.



5 Turn on satellite receiver

Turn on the satellite receiver's power.

6 Access Main Menu screen, then Initial Set screen

Press **MENU**. Press ▲▼ to place the pointer next to "INITIAL SET", then press **OK** or ▶ >>.

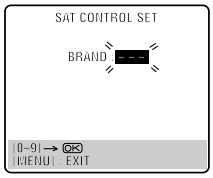
7 Access Sat Control Set screen

Press ▲▼ to place the pointer next to "SAT CONTROL SET", then press **OK** or ▶ >>.

8 Enter satellite receiver's brand

Press the appropriate **number keys** to enter the brand code from the following list, then press **OK**.

- If the code you entered is invalid, the code field will be reset. Enter the correct code again.



BRAND NAME	CODE	BRAND NAME	CODE
JVC	73	MASPRO	70
AMSTRAD	60, 61, 62, 63, 92	NOKIA	87, 94
ASTON	97	PACE	65, 67, 74, 86,
CANAL	81		92, 97
SATELLITE		PANASONIC	74, 92
CANAL +	81	PHILIPS	66, 84, 101
D-BOX	85	RADIX	78
ECHOSTAR	82	RFT	69
(VIA DIGITAL)		SABA	97
FINLUX	68	SAGEM	83, 90
FORCE	89	SALORA	68
GALAXIS	88	SAMSUNG	83
GRUNDIG	64, 65, 102	SIEMENS	64
HIRSCHMANN	64, 78, 99	SKYMASTER	69, 98
HUMAX	88	TECHNISAT	66, 100
ITT NOKIA	68	THOMSON	97
JERROLD	75	TPS	83
KATHREIN	70, 71, 96	TRIAX	91
LUXOR	68	WISI	64
MASCOM	93		

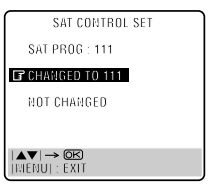
9 Select satellite receiver's channel for testing

Press the appropriate **number keys** to enter the channel position on the satellite receiver, then press **OK**. The recorder enters the test mode.

10 Check result of the test

If the satellite receiver's channel number has been changed to the same one as you set in step 9 …

Press ▲▼ to place the pointer next to "CHANGED TO …", then press **OK** or ▶ >> to finish the Sat Control Set mode.



If the satellite receiver's channel number has not been changed correctly …

Press ▲▼ to place the pointer next to "NOT CHANGED", then press **OK** or ▶ >>. Then perform the procedure again from step 8.

NOTE:

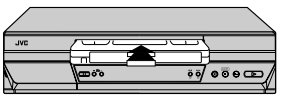
The Satellite Controller may not function properly with some types of satellite receiver.

Playback

Basic Playback

Turn on the TV and select the video channel or AV mode.

1 Load a cassette



Make sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is pointing towards the recorder.

- Do not apply too much pressure when inserting.
- The recorder turns on, and the counter is reset, automatically.
- If the cassette's record safety tab has been removed, playback begins automatically.

2 Start playback

Press ▶.

During playback

Stop playback

Press ■ on the remote control. **OR** Press ■/⏏ on the recorder.

Pause playback and view still picture

Press ❚❚.

- Press ▶ to resume normal playback.
- If there is vertical jitter, press **PR** ▲/▼ on the remote control or **PR+/–** on the recorder to correct the picture.

Pause and Frame-by-Frame playback

Press ❚❚ to pause, then press << ◀ or ▶ >> (or ❚❚) repeatedly.

- Press ▶ to resume normal playback.

Picture Search

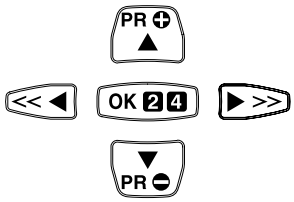
Press ◀◀ or ▶▶. Press ◀◀ or ▶▶ again to perform high-speed search.

- Each time you press ◀◀ or ▶▶, the search speed changes between low-speed and high-speed.
- Press ▶ to resume normal playback.

Variable Speed Search (including slow-motion)

Press << ◀ or ▶ >> repeatedly.

- Press ▶ to resume normal playback.
- Each time you press << ◀ or ▶ >>, the playback speed changes. To decrease the speed during picture search, press the opposite direction button repeatedly.
- During still picture, press and hold ▶ >> to start forward (or << ◀ to start reverse) slow motion playback. When you release the button, still picture resumes. During still picture, holding ❚❚ for more than 2 seconds also starts forward slow motion playback. If you press ❚❚ again, still picture resumes.
- During slow motion playback, some noise may appear on the TV screen. Press **PR** ▲/▼ on the remote control or **PR+/–** on the recorder to eliminate the noise.



Reverse search 3 steps	Reverse play	Reverse slow motion 1 step	Slow motion 1 step	Normal play	Forward search 4 steps

When the tape is not running

Rewind/fast-forward

Press ◄◄ or ►►.

Eject the cassette

Press ⏏ on the remote control. **OR** Press ■/⏏ on the recorder.

- You can also eject the cassette when the recorder is turned off.

Turn off the recorder

Press ⏻/I.

ATTENTION:
In the search, still, slow-motion or frame-by-frame playback mode,
- the picture will be distorted
- the noise bars will appear
- there will be a loss of color with an LP-recorded tape

Playback Features

Adjusting tracking condition

Automatic tracking adjustment
When a new cassette is loaded, the recorder enters the automatic tracking mode.
Manual tracking adjustment
If automatic tracking cannot eliminate noises well during playback, adjust the tracking manually.

On the remote control:
1 Press **//** to activate manual tracking.
2 Press **PR** ▲ or ▼ to eliminate the noises. Press it briefly for a fine adjustment, or press and hold for a coarse adjustment.
- Press **//** again to reactivate automatic tracking.

Selecting Soundtrack

Your recorder is capable of recording three soundtracks (HIFI L, HIFI R and NORM) and plays back the one you select. Pressing **AUDIO** changes the soundtrack as follows:

HIFI L R : For Hi-Fi stereo tapes
HIFI L : For main audio of Bilingual tapes
HIFI R : For sub audio of Bilingual tapes
NORM : For audio-dubbed tapes
HI FI NORM : For audio-dubbed tapes

NOTE:
Set "O.S.D." to "ON" to display the indications on the screen. (☞ 12)

Automatic operations after rewinding — Next Function Memory

The Next Function Memory "tells" the recorder what to do after rewinding. Ensure that the recorder is in stop mode.
- **For Automatic Playback Start**
Press ◄◄, then press ► within 2 seconds.
- **For Automatic Power Off**
Press ◄◄, then press ⏻/I within 2 seconds.
- **For Automatic Timer Standby**
Press ◄◄, then press ⏲ within 2 seconds.

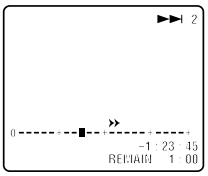
NOTE:
It is not possible to select the Automatic Timer Standby function if the cassette's record safety tab is removed.

Playing back tape repeatedly (100 times) — Repeat Playback

During playback, press and hold ► for more than 5 seconds. "▷" on the display panel starts blinking slowly. To stop playback, press ■ on the remote control or ■/⏏ on the recorder.

NOTE:
Pressing ►, ◄◄, ►► or ❚❚ also stops Repeat Playback.

Locating beginning of recordings — Index Search

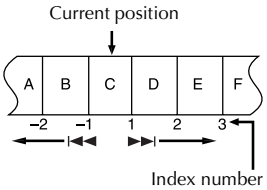


Index codes are placed on the tape at the beginning of each recording when recording on this recorder.

1 While the tape is not running, press I◄◄ or ►►I to start search.

2 To access a recording of 2 to 9 index codes away, press I◄◄ or ►►I repeatedly until the correct number is displayed on the screen (only if "O.S.D." is set to "ON" (☞ 12)).

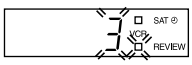
Example:
To locate the beginning of B from the current position, press I◄◄ twice.
To locate the beginning of D from the current position, press ►►I once.



- Playback begins automatically when the desired recording is located.

Locating beginning of timer recordings — Instant Review

After ensuring that the recorder is turned off and that the timer mode is disengaged, press **REVIEW**.
- The recorder turns on, and rewinds to the index code indicating the beginning of the last timer-recorded programme, then begins playback automatically.
- You can access a programme as far as 9 index codes away from the current tape position. For example, if you have timer-recorded 3 programmes, the REVIEW indicator and "3" blink. To watch the first of the 3 programmes, press **REVIEW** three times.



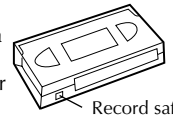
- The number of recorded programmes is not displayed on the display panel after Automatic Satellite Programme Recording.
- The Instant Review function can also operate if the recorder is turned on.

Skipping unwanted portions — Skip Search

Press **30 SEC** ⏩ once to 4 times during playback. Each press initiates a 30-second period of high-speed playback (up to 2 minutes). When the specified portion of the tape is skipped, normal playback resumes automatically. To return to normal playback during Skip Search, press ►.

Recording

Accidental erasure prevention
To prevent accidental recording on a recorded cassette, remove its record safety tab. To record on it later, cover the hole with adhesive tape.



Basic Recording

Turn on the TV and select the video channel or AV mode.

1 Load a cassette

Make sure the record safety tab is intact. If not, cover the hole with adhesive tape before inserting the cassette.
- The recorder turns on, and the counter is reset, automatically.

2 Select recording channel

Press **PR ▲/▼** or the **number keys** on the remote control or **PR+/–** on the recorder.
- You can select channel in the stop mode or recording pause mode.

3 Set tape speed

Press **//// (SP/LP)**. The current setting for the tape speed appears on the display panel and the screen for about 5 seconds. Press **//// (SP/LP)** again to change the setting while tape speed is displayed.

4 Start recording

On the recorder, press ●. Or on the remote control, while holding ●, press ►.

NOTES:
- *If the tape reaches its end during recording, the recording stops and "◯" and "▷" on the display panel blink. Press ■/⏏ on the recorder to eject the cassette or press ◄◄ to rewind the tape.*
- *When "DIRECT REC" is set to "ON" (☞ 12), if you press any button just after pressing ● on the recorder (or ● and ► on the remote control), the recorder may not function properly.*

During recording		
Pause recording		
Press **II**. ● Press ► to resume recording. ● You can select channel in the recording pause mode.		
Stop recording		
Press ■ on the remote control.	**OR**	Press ■/⏏ on the recorder.

Recording Features

Recording Resume Function

If there is a power outage during recording (or Instant Timer Recording, or timer recording), the recording will resume automatically when the power is restored to the recorder. (No setting is required for this function.)

NOTE:
If a power outage exceed the recorder's memory backup time, Recording Resume Function does not work.

Tape Remaining Time/Time Counter

Press **– –:– –** to display the tape remaining time and time counter on the screen. To reset the time counter, press **0000**.

NOTES:
- *Set "O.S.D." to "ON" to display the indications on the screen. (☞ 12)*
- *Depending on the type of tape used, the tape remaining time may not appear right away, or is not correct. "– –:– –" may sometimes appear, or the display may blink on occasion.*

Watching one programme while recording another

If your recorder is connected to the TV via the AV connection (☞ 4), press **TV/VCR**. The recorder's VCR indicator and the TV broadcast being recorded disappear. Once recording is in progress, all you need to do is to set the channel controls on the TV for the station you wish to view.
- The programme selected with the TV's channel controls appears on the screen, while the one selected with the **PR ▲/▼** on the remote control or **PR+/–** on the recorder is recorded on the tape.
- If a decoder is connected to the recorder, you can select a scrambled channel as well with the TV channel controls.

Specifying recording length — Instant Timer Recording (ITR)

During recording, press ● on the recorder repeatedly until the desired recording length appears on the display panel. "◯" on the display panel starts blinking.
- Each time you press the button, recording length increases in 30-minute intervals (up to 6 hours).
- The recorder turns off after recording is finished.
- To cancel an ITR, press ■ on the remote control or ■/⏏ on the recorder.

Receiving stereo and bilingual programmes

Your recorder is equipped with a Sound-Multiplex decoder (A2) and a Digital stereo sound decoder (NICAM), making reception of stereo and bilingual broadcasts possible.
When the channel is changed, the type of broadcast being received will be displayed on the screen for a few seconds.

Type of broadcast being received	On-screen display
A2 Stereo	ST
A2 Bilingual	BIL.
Regular Monaural	(none)
NICAM Stereo	ST NICAM
NICAM Bilingual	BIL. NICAM
NICAM Monaural	NICAM

- To listen to a stereo programme, press **AUDIO** until "HIFI L 🕪 🕩 R" appears on the screen.
- To listen to a bilingual programme, press **AUDIO** until "HIFI L 🕪" or "HIFI 🕩 R" appears on the screen.
- To listen to the standard (regular monaural) audio while receiving a NICAM broadcast, press **AUDIO** until "NORM" appears on the screen.

NOTE:
Set "O.S.D." to "ON" to display the indications on the screen. (☞ 12)

To record stereo and bilingual programmes (A2)

- Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound).
- Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. The main soundtrack is recorded on the normal audio track.

To record NICAM stereo and bilingual programmes

The NICAM audio programme is recorded on the Hi-Fi audio track, and the standard audio programme on the normal audio track.

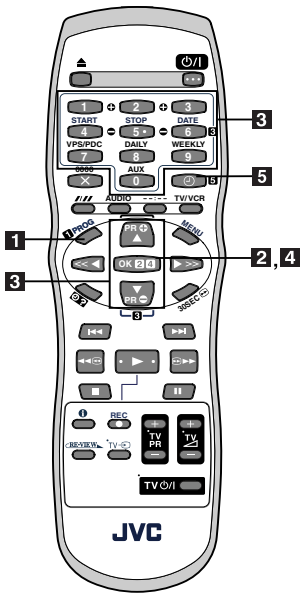
NOTES:
- *If the quality of stereo sound being received is poor, the broadcast may be received in monaural with better quality.*
- *Before playing back a programme recorded in stereo, or a bilingual programme, refer to "Selecting Soundtrack" (☞ 7).*

Timer Recording

Up to 8 timer recording programmes can be made.

Before starting:
- Set the clock properly. (☞ 13)
- Set "COLOUR SYSTEM" to the appropriate mode. (☞ 12)
- Load a cassette with the record safety tab intact.

NOTES:
- *PDC recording is not possible in Central and Eastern Europe.*
- *If all the 8 programmes have already been set, "PROGRAM FULL" appears on the screen.*
- *If the clock is not set, "CLOCK MUST BE SET" appears on the screen.*
- *After timer recording is completed, the recorder turns off automatically.*
- *If the tape reaches its end during timer recordings, the recording stops and "◴", "◯" and "▷" on the display panel blink. Press ◴ to disengage timer, then press ■/⏏ on the recorder to eject the cassette or press ⏻/I then press ◀◀ to rewind the tape.*
- *You can programme the timer recording while a regular recording is in progress; the menu screens will not be recorded.*

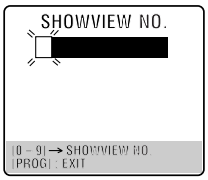


SHOWVIEW™ Timer Programming

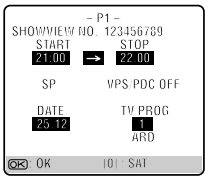
The SHOWVIEW numbers are the numbers next to the programme in most TV listing.

1 Press **PROG** to access the Timer Programming Set screen.

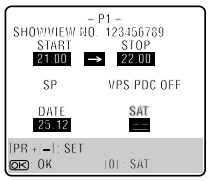
2 Press ▲▼ to place the pointer next to "SHOWVIEW", then press **OK** or ▶ >>. The SHOWVIEW NO. screen appears.



3 Press the appropriate **number keys** to input the SHOWVIEW number, then press **OK**. The SHOWVIEW program screen appears.
- If the number you entered is invalid, "ERROR" appears on the screen. Press ✕ and input a valid SHOWVIEW number.



- Make sure the channel position number you wish to record is displayed; if "TV PROG" displays "– –", set the channel position number correctly. Press **PR ⊕/⊖** to input the channel position number on which your recorder receives the station. Then press **OK**.
- To set the channel position number for the satellite broadcast station, press the **number key "0"** to change "TV PROG" to "SAT". Press **PR ⊕/⊖** to input the channel position number on which your satellite receiver receives that station. Then press **OK**.



- To set the tape speed, press **▶/▶▶ (SP/LP)**.
- To set the VPS/PDC mode, press **VPS/PDC** (**number key "7"**).
- To change the stop time, press **STOP ⊕/⊖** (**number keys "2" and/or "5"**).
- To timer-record daily (Monday–Friday) or weekly serials, press **DAILY** (**number key "8"**) or **WEEKLY** (**number key "9"**). Pressing the button again makes the "DAILY" or "WEEKLY" display disappear.
- To change the channel position number, press **PR ⊕/⊖**.

4 Press **OK** or **PROG**.
- If "PROGRAM OVERLAPPED" appears, see "Program overlap warning display" (☞ 10).

5 Press ◴. The recorder turns off automatically and "◴" is displayed on the display panel.

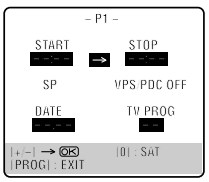
To timer-record a satellite broadcast using the SHOWVIEW system:
1 Perform "Satellite Receiver Control Set" (☞ 5).
2 Perform steps **1** – **5**. In step **3**, you cannot set "VPS/PDC" to "ON".
3 Leave the satellite receiver's power on.

Express Timer Programming

1 Press **PROG** to access the Timer Programming Set screen.

2 Press ▲▼ to place the pointer (highlighted bar) next to "EXPRESS PROGRAMMING", then press **OK** or ▶ >>. The program screen appears.

3 Press **START ⊕/⊖** (**number keys "1" and/or "4"**), **STOP ⊕/⊖** (**number keys "2" and/or "5"**), **DATE ⊕/⊖** (**number keys "3" and/or "6"**) or **PR ⊕/⊖** repeatedly to enter the start time, stop time, date or channel.



- Press and hold **START ⊕/⊖** or **STOP ⊕/⊖** to increase the time in 30-minute intervals.
- To set the tape speed, press **▶/▶▶ (SP/LP)**.
- To set the VPS/PDC mode, press **VPS/PDC** (**number key "7"**).
- To timer-record daily (Monday–Friday) or weekly serials, press **DAILY** (**number key "8"**) or **WEEKLY** (**number key "9"**). Pressing the button again makes the "DAILY" or "WEEKLY" display disappear.

4 Press **OK** or **PROG**.
- If "PROGRAM OVERLAPPED" appears, see "Program overlap warning display" (☞ 10).

5 Press ◴. The recorder turns off automatically and "◴" is displayed on the display panel.

To timer-record a satellite broadcast using Express Timer Programming:
1 Perform "Satellite Receiver Control Set" (☞ 5).
2 Perform steps **1** – **5**. In step **3**, press the **number key "0"** to change "TV PROG" to "SAT". Then press **PR ⊕/⊖** to enter the channel position for the satellite broadcast. You cannot set "VPS/PDC" to "ON".
3 Leave the satellite receiver's power on.

VPS/PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) and VPS (Video Programme System) are service designed to assure safe, accurate timer recording. With this system, your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

NOTE:

When you use Express Timer Programming, set the start time (VPS or PDC time) exactly as advertised in the TV listing.

How to check if the station being received transmits a VPS/PDC signal (Excepting in Central and Eastern Europe)

1 Press **– –:– –** until the channel position appears on the display panel.
2 Hold down **II** on the remote control for about 5 seconds. "VPS/PDC" appears blinking on the screen.
If a VPS/PDC signal is detected from the station, "VPS/PDC" will stop blinking.
If no VPS/PDC signal is detected from the station, "VPS/PDC" will blink at a slower rate.
3 Press **– –:– –** or **II** on the remote control again to return to normal screen.

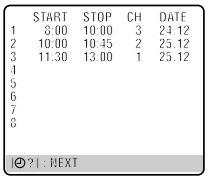
Checking, cancelling or changing programme settings

1 Disengage timer recording standby mode

Press ◴, then press ⏻/I.
- When "AUTO TIMER" is set to "ON" (☞ 12), press only ⏻/I.

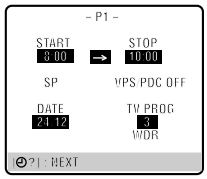
2 Access Program Check screen

Press ◴ **?**.



3 Access Program screen

Press ◴ **?** again. Each time you press ◴ **?**, the next programme's screen appears.



4 Cancel or change programme setting

To cancel a programme, press ✕.
To change a programme, press the appropriate button: **START ⊕/⊖** (**number keys "1" and/or "4"**), **STOP ⊕/⊖** (**number keys "2" and/or "5"**), **DATE ⊕/⊖** (**number keys "3" and/or "6"**), **DAILY** (**number key "8"**), **WEEKLY** (**number key "9"**), **PR ⊕/⊖**, **VPS/PDC** (**number key "7"**) and/or **/// (SP/LP)**.
- To change "TV PROG" to "SAT" for the channel position, press the **number key "0"**.

5 Return to normal screen

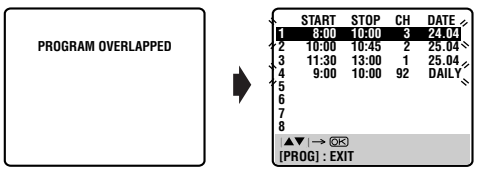
Press ◴ **?** repeatedly until no Program screen is shown.

6 Re-engage timer recording standby mode

Press ◴. The recorder turns off automatically and "◴" is displayed on the display panel.
- When "AUTO TIMER" is set to "ON" (☞ 12), the timer recording standby mode automatically resumes when you turn off the recorder.

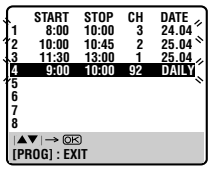
Program overlap warning display

If "PROGRAM OVERLAPPED" appears, you have another program overlapping the program you have just made. The Program Check screen appears and conflicting programs will start blinking.



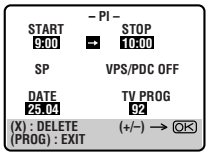
Example:
Program 1 (you have just made) and Program 4 overlap each other

1 Select program to modify



Press ▲▼, then press **OK** or ▶ >>.
- You can only select one of the overlapping programs.
- If you do not mind this overlap, press **PROG** to finish the timer program setting. The program starting earlier or program with the lower program number will be recorded.

2 Cancel or change program setting



To cancel a program, press ✕ when the Program screen you do not want is shown.
To change a program, press the appropriate button: **START ⊕/⊖** (**number keys "1" and/or "4"**), **STOP ⊕/⊖** (**number keys "2" and/or "5"**), **DATE ⊕/⊖** (**number keys "3" and/or "6"**), **PR ⊕/⊖** and/or **/// (SP/LP)** when the Program screen on which you want to make changes is shown, then press **OK** or ▶ >>.
- If the overlap is not yet solved, the conflicting programs will be shown on the Program check screen. Repeat the above steps again.

Automatic Satellite Programme Recording

You can automatically record a satellite programme which is timer-programmed on your satellite receiver.

1 Connect a satellite receiver to the L-2 IN/DECODER connector on the rear panel.

2 Set timer programme on satellite receiver referring to its instruction manual.

3 Load a cassette with the record safety tab intact.

4 Set "L-2 SELECT" to "A/V" or "SAT". (☞ 12)

5 To set the tape speed, press **/// (SP/LP)**. The current setting for the tape speed appears on the display panel or the screen for about 5 seconds. Press **/// (SP/LP)** again to change the setting while tape speed is displayed.

6 Press **SAT◴** for more than 2 seconds. The recorder turns off automatically and enter the Automatic Satellite Programme Recording mode (the SAT◴ indicator lights up). When signals come into the recorder from the satellite receiver, the recorder starts recording (the SAT◴ indicator blinks). The recorder stops recording and turns off when signals stop coming in.

NOTES:
- *Be sure not to turn on the satellite receiver before the programme starts broadcasting; otherwise, the recorder starts recording when the satellite receiver is turned on.*
- *To disengage the Automatic Satellite Programme Recording mode, press **SAT◴** (the SAT◴ indicator goes off).*
- *Depending on the type of satellite receiver, Automatic Satellite Programme Recording may not be compatible.*
- *B.E.S.T. does not work in the Automatic Satellite Programme Recording mode.*
- *Power Save mode does not work in the Automatic Satellite Programme Recording mode.*
- *Just Clock does not work in the Automatic Satellite Programme Recording mode.*

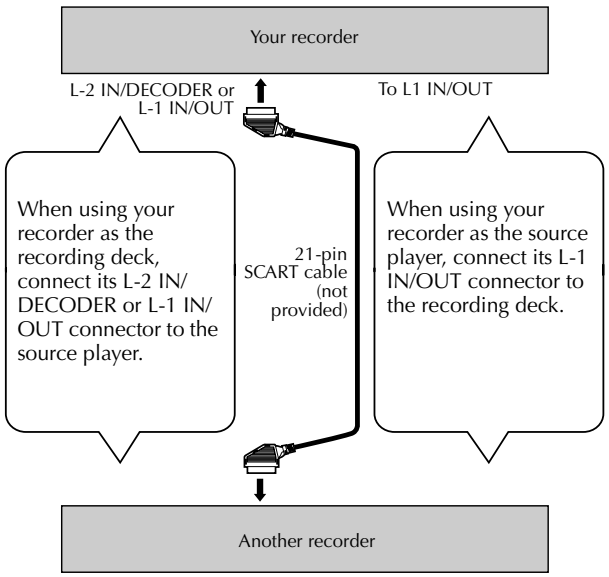
Editing

Editing with another video recorder or a camcorder

You can use your recorder as the source player or the recording deck. You can use a camcorder as the source player and your recorder as the recording deck. Refer also to the other components' instruction manuals for connection and its operations.

1 Make connections

Connection with another video recorder


Your recorder
L-2 IN/DECODER or L-1 IN/OUT
To L1 IN/OUT
When using your recorder as the recording deck, connect its L-2 IN/ DECODER or L-1 IN/ OUT connector to the source player.
21-pin SCART cable (not provided)
When using your recorder as the source player, connect its L-1 IN/OUT connector to the recording deck.
Another recorder

Connection with a camcorder

Connect the camcorder's AUDIO/VIDEO OUT connectors to the recorder's L-1 IN/OUT or L-2 IN/DECODER connector via a cable adapter.

2 Load cassettes

Insert the playback cassette into the source player and the cassette to be recorded on into the recording deck.

3 Select input mode on recording deck

Select the correct external input on the recording deck. On this recorder, press **AUX** or **PR ▲/▼** on the remote control or **PR+/–** on the recorder.
Select "L-1" for the L-1 IN/OUT connector, or "L-2" for the L-2 IN/ DECODER connector.

4 Select edit mode

Select the appropriate edit mode for the components if such a mode is equipped.

- On this recorder, set "PICTURE CONTROL" to "EDIT". (☞ 12)

5 Start playback

Engage the Play mode of the source player.

6 Start recording

Engage the Record mode of the recording deck.

System Connections

NOTE:
When you select a country in Central or Eastern Europe for country setting, you cannot use decoder with this recorder.

Connecting to a satellite receiver

Connect the decoder to the satellite receiver's connector if you have a decoder, L-1 IN/OUT connector to TV's connector, and L-2 IN/DECODER connector to the satellite receiver's connector. Then connect the satellite receiver and TV.

- Set "L-2 SELECT" to "A/V". (☞ 12)
- To record a programme via the satellite receiver, set the input mode to "L-2" by pressing **AUX** or **PR ▲/▼** on the remote control or **PR+/–** on the recorder.
- To receive a scrambled broadcast, descramble the signal with the satellite receiver.
- For details, refer to the instruction manual for the satellite receiver and decoder.

Connecting/Using a decoder

You can enjoy the variety of programming that is available through scrambled channels.

1 Set "L-2 SELECT" to "DECODER". (☞ 12)
2 Connect the recorder's L-2 IN/DECODER connector to the decoder's 21-pin SCART connector using a 21-pin SCART cable.
3 Perform the procedure as described in "When receiving a scrambled broadcast" (☞ 14).

Connecting/Using a stereo system

You can listen to the soundtrack through your stereo system. Connect the AUDIO OUT L and R connectors on the recorder to the AUX IN or TAPE MONITOR connectors on your stereo system's receiver or amplifier.

- When listening to sound through the connected stereo system, turn the TV's volume down completely.

Subsidiary Settings

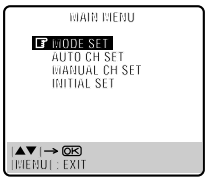
Mode Set

You can change various mode settings.

Turn on the recorder and the TV, and set your TV to its AV mode or video channel.

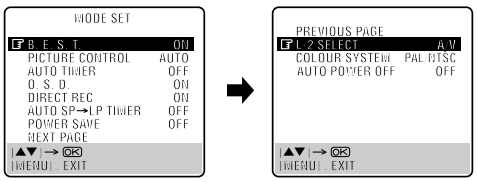
1 Access Main Menu screen, then Mode Set screen

Press **MENU**. Press **▲▼** to place the pointer next to "MODE SET", then press **OK** or **▶ >>**.



2 Select mode

Press **▲▼** to place the pointer next to the item you want to set.



3 Change setting

Press **OK** or **▶ >>**. The default setting is **bold** in the following table. Press **MENU** to return to normal screen.

■ B.E.S.T. — **ON** / OFF

When B.E.S.T. (Biconditional Equalised Signal Tracking) system is set to "ON", the recorder checks the condition of the tape in use during playback and recording, and compensates to provide the highest-possible pictures. When B.E.S.T. works, "bESt" appears blinking on the display panel. B.E.S.T. takes place whenever you play back a tape or start recording after inserting a cassette.

NOTE:

The recorder checks the tape condition for about 7 seconds, then starts recording. To make sure you record the desired scene or programme completely, perform the following steps:

1 Press and hold ❚❚, and press ●. After about 7 seconds, the recorder re-enters Record Pause mode.

2 Press ► to start recording.

■ PICTURE CONTROL — **AUTO**(NORM) / EDIT / SOFT

This function helps you to adjust the playback picture quality according to your preference.

AUTO(NORM): Normally select this. Picture quality is adjusted automatically. When "B.E.S.T." is "OFF", "NORM" will appear instead of "AUTO".

EDIT: Minimizes picture degradation during editing (recording and playback).

SOFT: Reduces image coarseness when viewing overplayed tapes containing much noise.

NOTE:

Select "EDIT" when you are editing tapes. After you finish editing, select "AUTO".

■ AUTO TIMER — ON / **OFF**

● **When this function is set to "ON":**

The timer recording standby mode is automatically engaged when the recorder is turned off. It is temporarily cancelled when the recorder is turned on. You do not have to press ◴ to engage or disengage the timer recording standby mode.

● **When this function is set to "OFF":**

Press ◴ to engage or disengage the timer recording standby mode.

NOTE:

"AUTO TIMER" does not work if "POWER SAVE" is set to "ON".

■ O.S.D. — **ON** / OFF

When this function is set to "ON", various recorder status information (on-screen display) appears on the screen.

NOTE:

When you use the recorder as the source player for editing a tape, be sure to set this function to "OFF". Otherwise, the recorder status information will be recorded on the edited tape.

■ DIRECT REC — **ON** / OFF

When this function is set to "ON", you can easily start recording the programme that you are watching on your TV. Press and hold ● and press ► on the remote control, or press ● on the recorder.

NOTES:

- *When you use this function, be sure to use a TV offering T-V LINK, etc. and connect a fully-wired 21-pin SCART cable between the recorder and the TV.*
- *When "DIRECT REC" is set to "ON", if you press any button just after pressing ● on the recorder (or ● and ► on the remote control), the recorder may not function properly.*

■ AUTO SP→LP TIMER — ON / **OFF**

When this function is set to "ON", the recorder automatically switches to LP mode to allow complete recording if there is not enough tape to record the entire programme while timer-recording in SP mode.

For example, recording a programme of 210 minutes in length onto a 180 minute tape.

Approximately 150 minutes	Approximately 60 minutes
SP mode	LP mode

Total 210 minutes

NOTES:

- *If you have programmed the recorder to timer-record 2 or more programmes, do not use this function, but change the tape speed manually during timer programming.*
- *There may be some noise and sound disturbance where the tape speed switches from SP to LP mode on the tape.*
- *This function is not available during ITR (Instant Timer Recording), and will not work properly with any tapes longer than E-180 or with some tapes of shorter lengths.*
- *If you perform timer recording with both this function and VPS/PDC activated, and the programme goes beyond its originally scheduled length, sometimes the programme cannot be recorded in its entirety.*

■ POWER SAVE — ON / **OFF**

When this function is set to "ON", you can reduce the power consumption while the recorder is turned off.

NOTES:

- *During Power Save mode,*
  - *the display panel is turned off,*
  - *the Just Clock does not work,*
  - *and the picture may be distorted momentarily when you turn on/off the recorder.*
- *Power Save does not work in the following cases:*
  - *When "L-2 SELECT" is set to "DECODER" or "SAT",*
  - *or when the recorder is in the timer recording standby mode,*
  - *or in the Automatic Satellite Programme Recording mode,*
  - *or when the recorder's power is turned off after timer-recording or ITR (Instant Timer Recording).*

■ L-2 SELECT — **A/V** / DECODER / SAT

Select the appropriate mode depending on the type of unit connected to the L-2 IN/DECODER connector of the recorder.

A/V: To use the recorder as the recording deck with the player connected to the L-2 IN/DECODER connector, or to use the satellite receiver connected to the L-2 IN/DECODER connector.

DECODER: To use a decoder connected to the L-2 IN/DECODER connector.

- When you select a country in Central or Eastern Europe for country setting, you cannot use a decoder with this recorder.

SAT: To view a satellite programme with the TV set while the recorder is turned off.

- When the recorder is in stop or recording mode, press **TV/VCR** to turn off the VCR indicator on the display panel. If you turn on the recorder when the satellite receiver's power is off, nothing appears on the screen. In this case, turn on the satellite receiver, or set the TV to its TV mode, or press **TV/VCR** to set the recorder to the video mode.

■ COLOUR SYSTEM — **PAL/NTSC** / MESECAM

You can play back PAL, NTSC and MESECAM tapes, or record PAL and SECAM* signals on this recorder. Select the appropriate colour system.

** SECAM signals will be recorded as MESECAM on this recorder; MESECAM is the designation for tapes with SECAM signals that have been recorded on a MESECAM-compatible PAL video cassette recorder.*

PAL/NTSC: To record PAL signals, or playback a PAL or NTSC tape.

MESECAM: To record SECAM signals, or play back a MESECAM tape.

NOTES:

About NTSC Playback

- *Some TVs shrink the picture vertically and place black bars at the top and bottom of the screen, or cut off the top and bottom portions of superimposed displays. This is not a malfunction.*
- *The picture may roll up and down. This can be corrected if your TV has the V-HOLD control function.*
- *The counter and tape remaining time readings will be incorrect.*
- *During search, still, or frame-by-frame playback, the picture will be distorted, and there may be a loss of colour.*

■ **AUTO POWER OFF** — 3H / **OFF**

When this function is set to "3H", the recorder turns off automatically if no operation is done in 3 hours. "AUTO POWER OFF IN 3MIN" appears on the screen 3 minutes before the recorder is turned off.

Clock Set

Turn on the recorder and the TV, and set your TV to its AV mode or video channel.

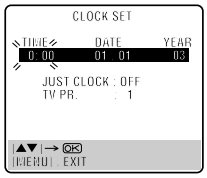
1 Access Main Menu screen, then Initial Set screen

Press **MENU**. Press ▲▼ to place the pointer next to "INITIAL SET", then press **OK** or ▶ >>.

2 Access Clock Set screen

Press ▲▼ to place the pointer next to "CLOCK SET", then press **OK** or ▶ >>.

3 Set time, date and year



Press ▲▼ until the desired time appears, then press **OK** or ▶ >>. Set the date and year in the same way.

- Holding ▲▼ changes the time in 30-minute intervals, or changes the date in 15-day intervals.

4 Set Just Clock

Set to "ON" or "OFF" by pressing ▲▼, then press **OK** or ▶ >>.

Just Clock

The Just Clock function provides accurate time keeping through automatic adjustments at regular intervals, by reading data from a PDC signal. Normally, set "JUST CLOCK" to "ON".

NOTES:

- *Just Clock may not function properly depending on the reception condition.*
- *When you select a country in Central or Eastern Europe for country setting, you cannot use Just Clock. Skip steps* 4 *–* 5*.*
- *Just Clock is not effective when …*
  … the recorder's power is on.
  … the recorder is in the Timer mode.
  … a difference of more than 3 minutes exists beween the built-in clock's time and the actual time.
  … the recorder is in the Power Save mode (☞ 12).
  … "L-2 SELECT" is set to "SAT" (☞ 12).

5 Set source channel position

The recorder is preset to receive clock setting and adjustment data from channel position 1. Press ▲▼ to set the channel position to the number representing the station transmitting clock setting data, then press **OK** or ▶ >>.

6 Start clock

Press **MENU**.

ATTENTION:
If the AC was disconnected from the recorder and the recorder's memory backup has expired, the recorder will automatically perform Auto Clock Set when the power is restored.

Tuner Set

Perform the following steps only if the tuner has not been set correctly by Auto Set Up or Preset Download, or if you have moved to a different area, or if a new station starts broadcasting in your area.

The recorder needs to memorise all necessary stations in channel positions in order to record TV programmes. Auto Channel Set automatically assigns all receivable stations in your area.

Auto Channel Set

1 Access Main Menu screen, then Auto Channel Set screen

Press **MENU**. Press ▲▼ to place the pointer next to "AUTO CH SET", then press **OK** or ▶ >>.

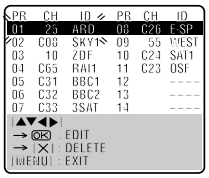
2 Select your country

Press ▲▼ to place the pointer next to your country, then press **OK** or ▶ >>.

3 Select language

Press ▲▼ to place the pointer next to the desired language.

4 Perform Auto Channel Set


PR CH ID PR CH ID
01 25 ARD 08 C26 E SP
02 C08 SKY1 09 55 WEST
03 10 ZDF 10 C24 SAT1
04 C65 RAI1 11 C23 OSF
05 C31 BBC1 12 ----
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
▲▼◀▶
→ OK : EDIT
→ |✕| : DELETE
MENU : EXIT

Press **OK** <u>twice</u>. When Auto Channel Set is completed, "SCAN COMPLETED" is displayed on the screen for about 5 seconds, then the Confirmation screen appears.

- When you select a country in Central or Eastern Europe for country setting, station names (ID) are not stored automatically. Change station names manually. (☞ 14)

5 Return to normal screen

Press **MENU**.

NOTES:

- *Depending on reception conditions, the stations may not be stored in order, and the station names may not be stored correctly.*
- *If no sound accompanies the picture or the audio sounds unnatural on some channels, select the appropriate TV system for those channels.*
- *To delete stations with poor reception condition, refer to "Deleting a channel" (☞ 14).*

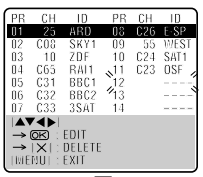
Manual Channel Set

Store channels that were not stored during Auto Set Up, Preset Download or Auto Channel Set.

1 Access Main Menu screen, then Confirmation screen

Press **MENU**. Press ▲▼ to place the pointer next to "MANUAL CH SET", then press **OK** or ▶ >>.

2 Select position

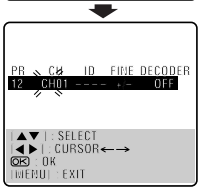

PR CH ID PR CH ID
01 25 ARD 08 C26 E SP
02 C08 SKY1 09 55 WEST
03 10 ZDF 10 C24 SAT1
04 C65 RAI1 11 C23 OSF
05 C31 BBC1 12 ----
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
▲▼◀▶
→ OK : EDIT
→ |✕| : DELETE
MENU : EXIT

Press ▲▼ << ◀ ▶ >> until an open channel position begins blinking, then press **OK**. The Manual Channel Set screen appears.

3 Select band

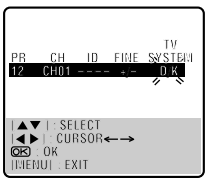
Press ▲▼ to select CH (regular) or CC (cable), then press ▶ >>.

4 Input channel



Press the **number keys** to input the channel number you want to store. Input "0" before any single number entries.

- To input the registered station name (ID), press ▶ >> until "– – – –" begins blinking, then press ▲▼.
- When "L-2 SELECT" is set to "A/V" or "SAT", the "DECODER" setting cannot be changed. (☞ 12)
- If you have selected a country in Central or Eastern Europe for country setting, "TV SYSTEM" setting appears instead of "DECODER" setting. When you can see the picture but can hear no audio, select appropriate TV system.
  Press ▶ >> until D/K or B/G blinks. Then press ▲▼ to select D/K or B/G.



Major Countries/Areas	TV System
Austria, Denmark, Finland, Holland, Italy, Norway, Spain, Switzerland, Sweden, Germany, Egypt, Western Europe	B/G
China, Mongolia, Rumania, Bulgaria, Czech Rep., Slovakia, Hungary, Poland, Russia, Central or Eastern Europe	D/K

5 Store new channel

Press **OK**.
- Repeat steps 2 – 5 as necessary.

6 Return to normal screen

Press **MENU**.

Deleting a channel

1 Access Confirmation screen

Perform step 1 of "Manual Channel Set" (☞ 13).

2 Select position

Press ▲▼ << ◀ ▶ >> to until the channel you want to delete begins blinking.

3 Delete channel

Press ✕. The channel directly beneath the cancelled one moves up one line.
- Repeat steps 2 – 3 as necessary.

4 Return to normal screen

Press **MENU**.

Changing station channel positions

1 Access Confirmation screen

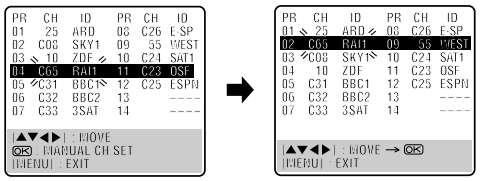
Perform step 1 of "Manual Channel Set" (☞ 13).

2 Select position

Press ▲▼ << ◀ ▶ >> until the station you want to move begins blinking, then press **OK**. The channel number (CH) and the station name (ID) begin blinking.

3 Select new position

Press ▲▼ << ◀ ▶ >> to move the station to the new position, then press **OK**.
Example: If you moved the station in position 4 to position 2, the stations originally in positions 2 and 3 each move down one space.


PR CH ID PR CH ID
01 25 ARD 08 C26 E-SP
02 C08 SKY1 09 55 WEST
03 10 ZDF 10 C24 SAT1
04 C65 RAI1 11 C23 OSF
05 C31 BBC1 12 C25 ESPN
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
: MOVE
: MANUAL CH SET
: EXIT
PR CH ID PR CH ID
01 25 ARD 08 C26 E-SP
02 C65 RAI1 09 55 WEST
03 C08 SKY1 10 C24 SAT1
04 10 ZDF 11 C23 OSF
05 C31 BBC1 12 C25 ESPN
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
: MOVE → OK
: EXIT

- Repeat steps 2 – 3 as necessary.

4 Return to normal screen

Press **MENU**.

When receiving a scrambled broadcast

NOTE:
When you select a country in Central or Eastern Europe for country setting, you cannot use decoder with this recorder.

1 Select decoder mode

Set "L-2 SELECT" to "DECODER". (☞ 12)

2 Access Confirmation screen

Perform step 1 of "Manual Channel Set" (☞ 13).

3 Select position

Press ▲▼ << ◀ ▶ >> to select the channel broadcasting scrambled programmes, then press **OK** twice.

4 Change decoder setting

Press ▶ >> until "OFF" begins blinking, and set it to "ON" by pressing ▲▼. Then press **OK**.
- Repeat steps 3 – 4 as necessary.

5 Return to normal screen

Press **MENU**.

Changing station name

1 Access Confirmation screen

Perform step 1 of "Manual Channel Set" (☞ 13).

2 Select position

Press ▲▼ << ◀ ▶ >> until the desired channel begins blinking, then press **OK** twice. The Manual Channel Set screen appears.

3 Select station name

If the station name is registered in your recorder,
Press ▶ >> until the station name (ID) begins blinking. Press ▲▼ until the desired station name appears, then press **OK**.
Repeat steps 2 – 3 as necessary.

Otherwise,
Press ▶ >> until the first letter of the station name (ID) begins blinking. Press ▲▼ to cycle through the characters, then press ▶ >>. Enter the remaining characters the same way (maximum of 4). After entering all characters, press **OK**.
- The characters available for the station name (ID) are A-Z, 0-9, –, *, +, _ (space).
- If you make a mistake, press << ◀ until the incorrect character begins blinking. Then enter the correct character by pressing ▲▼.

4 Return to normal screen

Press **MENU**.

Fine-tuning channels

1 Access Confirmation screen

Perform step 1 of "Manual Channel Set" (☞ 13).

2 Select position

Press ▲▼ << ◀ ▶ >> until the channel you want to tune begins blinking, then press **OK** twice. The Manual Channel Set screen appears.

3 Perform tuning

Press ▶ >> until "+/–" begins blinking, then press ▲▼ until the picture is its clearest. Then press **OK**.
- Repeat steps 2 – 3 as necessary.

4 Return to normal screen

Press **MENU**.

TV station and ID list

ID*	STATION NAME	ID*	STATION NAME
1000	TV1000	NICK	NICKELODEON
3SAT	3SAT	NOVA	NOVA TV
9LIV	9LIVE	NRK1	NRK
AB3	AB3	NRK2	NRK2
ADLT	ADULT	ODE	ODEON
ANIM	Animal Planet	ORF1	ORF1
ANT3	ANTENA3	ORF2	ORF2
ARD	ARD	PHOE	PHOENIX
ARTE	ARTE	POLS	POLST
ATV	ATV	PREM	PREMIERE
B1	BERLIN1	PRIM	PRIMA TV
BBC	BBC GROUP	PRO7	PRO7
BBC1	BBC1	RAI1	RAI1
BBC2	BBC2	RAI2	RAI2
BBCW	BBCW	RAI3	RAI3
BIO+	TV BIO+	RET4	RETE4
BLOO	BLOOMBERG	RTB1	TELE21
BR3	BAYERN3	RTB2	RTBF2
C+	CANAL PLUS	RTL	RTL
C1	PORTUGUSES	RTL2	RTL2
C9	C9	RTL4	RTL4
CAN5	CANALE5	RTL5	RTL5
CANV	KETNET CANVAS	RTL7	RTL7
CANZ	KANAAL Z	RTLK	RTL KLUB
CH4	CHANNEL4	RTP	RTP
CH5	CHANNEL5	RTV4	RTV4
CHLD	CHILD	SAT1	SAT1
CINE	CINEMA	SBS6	SBS
CLUB	TELECLUB	SERV	Service
CMT	CMT	SF1	SF1
CNN	CNN	SF2	SF2
CSUR	ANDALUCIA	SHOW	SHOW
CT1	CT 1	SIC	SOCIEDADE
CT2	CT 2	SKY	SKY CHANNEL
DISC	DISCOVERY	SKYN	SKY NEWS
DK1	TV Denmark 1	SPEK	SPEKTRUM
DK2	TV Denmark 2	SPRT	SPORT
DK4	Denmark 4	SRTL	SUPER RTL
DR1	DR TV	STAR	STAR-TV
DR2	DR2	SVT1	SVT1
DSF	DSF	SVT2	SVT2
DUNA	DUNA TV	SV24	News
ETB1	ETB1	SWR	SUEDWEST3
ETB2	ETB2	TCC	TCC
ETV	Game/Shop/Music	TCM	TCM
EUNW	EURO NEWS	TELE	TELE
EURO	EURONEWS	TEL5	TELE5
EUSP	EUROSPORTS	TF1	TF1
FEMM	FEMMAN	TM	TM
FILM	FILM	TMC	TELEMONTECARLO
FNET	FILMNET	TMF	TMF
FR2	France2	TNT	TNT INT
FR3	France3	TRT	TRT INT
FR5	France 5	TSI1	TSI
GALA	GALAVISION	TSI2	TSI2
HBO	HBO	TSR1	TSR
HR3	HESSEN3	TSR2	TSR2
HSEU	HSEU	TV1	BRTN TV1
INFO	INFO-KANAL	TV2	TV2
ITA1	ITALIA1	TV2Z	TV2 Z
ITA7	ITALIA7	TV3	TV3
ITV1	ITV	TV3+	TV3 plus
JIM	JIM TV	TV4	TV4
JSTV	JSTV	TV5	TV5
KA2	KA2	TV6	TV6
KAB1	KABEL1	TV8	TV8
KAN2	KANAL2	TVE1	TVE1
KAN5	KANAL5	TVE2	TVE2
KBH	Kbh. Kanal	TVG	TV GALICIA
KIKA	Kinder kanal	TVI	TV INDEPENDENT
LA7	LA7	TVN	TV NORGE
LIB	Liberty TV	TV24	TVN24
LOCA	LOCAL	TVP1	TVP1
M6	M6	TVP2	TVP2
MBC	MBR	TV P	TV Polonia
MCM	MCM	V8	V8
MDR	MDR	VCR	VIDEO
MOVE	MOVIE	VH-1	VH-1
MTV	MTV	VIT	VIT
MTV1	MTV1	VIVA	VIVA
MTV2	MTV2	VIV2	VIVA2
MTV3	MTV3	VMTV	VIDEO MUSIC
NGEO	NGEO	VOX	VOX
N24	News 24	VSAT	VIASAT3
N3	NORD3	VT4	VT4
N-TV	N-TV	VTM	VTM
NBC	NBC SUPER	WDR3	West3
NDR	NDR	WRLD	WRLD
NED1	NED1	YLE1	YLE1
NED2	NED2	YLE2	YLE2
NED3	NED3	YORN	YORIN
NET5	Net 5	ZDF	ZDF
NEWS		ZTV	ZTV

** The "ID" abbreviation is what is shown on-screen in lieu of the station name. The "ID" abbreviation is listed in the Confirmation screen and is displayed on the screen when the recorder is tuned to a different station.*

Video Channel Set

Video channel (RF output channel) is the channel on which your TV receives picture and sound signals from the recorder through the RF cable.

Perform the following steps only if —

— Video Channel Set has not been done correctly by the Auto Set Up function (☞ 4),

— you set up the recorder's tuner by Preset Download (☞ 5) instead of using the Auto Set Up function,

— interference appears in the TV picture after you have moved to a different area or a new station has started broadcasting in your area,

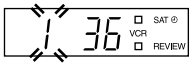
— you change the connection between your recorder and TV from RF connection to AV connection, or vice versa.

If you have connected the recorder to your TV via the AV connection (☞ 4), set the video channel to off.

If you have connected the recorder to your TV via the RF connection (☞ 4), set the correct video channel.

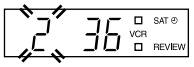
- Make sure the recorder's power is off and there is no cassette inserted in the recorder.

1 Access Video Channel Set mode



Hold down ■/⏏ on the recorder until the display panel shows the following.

2 Set RF output system

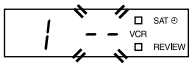


The blinking number on the display indicates the RF output system of your country. Press ▲▼ to set to "1" or "2", then press **OK**. (1: B/G 2: D/K)

Major Countries/Areas	TV System
Austria, Denmark, Finland, Holland, Italy, Norway, Spain, Switzerland, Sweden, Germany, Egypt, Western Europe	B/G
China, Mongolia, Rumania, Bulgaria, Czech Rep., Slovakia, Hungary, Poland, Russia, Central or Eastern Europe	D/K

3 Set video channel

With AV connection



Press **PR –** until the display panel shows "1 – –" (or "2 – –").

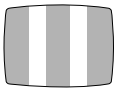
- Now the video channel is set to off.

With RF connection

Press **PR +** or **–** to set the video channel to a vacant position between 22 and 69 which is not occupied by any local station in your area.

(Example) If channel 50 is available in your area, set the video channel to 50. Then, set your TV to UHF channel 50.

- If the two vertical white bars appear clearly on the screen as shown on the right, go to step 4.



- If the two vertical white bars do not appear clearly, re-set the video channel to another vacant position and try again.

4 Exit Video Channel Set mode

Press **OK**.

With AV connection
To view picture signals from the recorder, set your TV to its AV mode.

With RF connection
The channel on which the two vertical white bars appear clearly is your video channel. To view picture signals from the recorder, set your TV to the video channel.

Specifications

GENERAL

Power requirement	:	AC 220 V – 240 V∿, 50 Hz/60 Hz
Power consumption		
Power on	:	14 W
Power off	:	3.2 W
Temperature		
Operating	:	5°C to 40°C
Storage	:	–20°C to 60°C
Operating position	:	Horizontal only
Dimensions (W x H x D)	:	400 mm x 94 mm x 265 mm
Weight	:	3.1 kg
Format	:	VHS PAL standard
Maximum recording time		
(SP)	:	240 min. with E-240 video cassette
(LP)	:	480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system	:	PAL-type colour signal and CCIR monochrome signal, 625 lines 50 fields
Recording system	:	DA4 (Double Azimuth) head helical scan system
Signal-to-noise ratio	:	45 dB
Horizontal resolution	:	250 lines
Frequency range		
Normal audio	:	70 Hz to 10,000 Hz
Hi-Fi audio	:	20 Hz to 20,000 Hz
Input/Output	:	21-pin SCART connectors: IN/OUT x 1, IN/DECODER x 1 RCA connectors: AUDIO OUT x 1

TUNER/TIMER

TV channel storage capacity	:	99 positions (+AUX position)
Tuning system	:	Frequency synthesized tuner
Channel coverage		
VHF	:	47 MHz – 89 MHz/ 104 MHz – 300 MHz/ 302 MHz – 470 MHz
UHF	:	470 MHz – 862 MHz
Aerial output	:	UHF channels 22 – 69 (Adjustable)
Memory backup time	:	Approx. 10 min.

ACCESSORIES

Provided accessories	:	RF cable, Infrared remote control unit, "R6" battery x 2
Optional accessories	:	Satellite Controller RM-SD1

Specifications shown are for SP mode unless specified otherwise. E. & O.E. Design and specifications subject to change without notice.

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